R-Style Lab

IoT Services

JUST DO IT: R&D

Since its launch in 2006 R-Style Lab has always been engaged in Research and Development and formed a strong R&D department with specialists who have PhD & Master Degrees in Math, Physics & Computer Science. Moreover, our team members participated in software development for space program.

OUR IoT JOURNEY

Back in 2011 we began our IoT journey with a digital ruler connected to smartphone. Now we work on projects with face & voice recognition technologies, develop AI-based devices, connected home solutions, and operated neural networks incl. ones with fuzzy logic.

IoT EXPERTS

We've accumulated profound expertise in IoT and specific deep knowledge in embedded systems development over these 6 years. 40% of our team is senior developers with 7+ years of experience and some of them have 15 years' expertise in embedded technologies.

PoC AND PROTOTYPING ARE KING!

Breakthrough ideas require serious proof of concept. We provide thorough research, requirements analysis & feasibility review. We are dead serious about it: before actual prototypes we develop up to 10 smaller trials just to confirm that planned approach actually fits our case.

R&D AND BA → PROTOTYPING → SOFTWARE DEVELOPMENT → DELIVERY → SUPPORT

Home appliances
Personal comfort
Security and access
Personal care and fitness
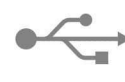Enterprise-grade

PROTOCOLS

Modbus
Z-Wave
Zigbee
MQTT
WiFi
BLE
Serial

3RD PARTY SOLUTIONS

nest

hue
PHILIPS

Google Cloud Platform

ENVORINMENTAL SENSORS

Pressure
Temperature
Humidity RH%
Motion and presense
Video
Beacons
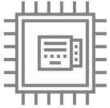
SENSORS CONTROLLER RPI/ARDUINO BASED

REMOTE SYSTEM MAINTENANCE BACKEND

USB Serial
INTERNET
INTERNET

HEAVY COMPUTING MICRO PC (X86/ARM BASED)

CUSTOM EMBEDDED PLATFORM (SCRIPTABLE C++)

SECURITY AND ENCRYPTION LAYER

3RD PARTY APIS INTERFACE

Google Vision API interface

Mi Light Interface

Cortana interface

Phillips interface

Nest interface

SMART ANALYSIS MODULE

Neural network

Behavioural model implemenation

Decision-making module

Business logic module

PUBLIC REST API

SERIAL SENSORS INTERFACE MODULE

STATISTICS MODULE

PRIVATE REST API

CONFIGURATION AND CUSTOMER APPS

R·Style Lab

Home Automation Lab

Systems for Home Automation area have steadily become our stand-alone expertise niche that we strive to constantly digger further and extend the pool of our specialists within.

Currently, we have a home automation department and 2 Home Automation projects that we have both investigated and worked on:

1

2015: Development of the conception "Smart Home" for the US market.
The analysis and conception development have covered both hardware and software parts.

Our conception has its focus on:

- Lighting management (turn on/turn off, smooth adjustment, scenarios);
- Electric appliances management;
- Temperature management;
- Analysis of the temperature, humidity and lighting intensity sensors values;
- Analysis of the movements sensor values - for the security and automatic lighting purposes.

2

February 2016 - current: Home Automation MVP development

An ongoing research and development for a Home Automation MVP that covers development for both hardware (Linux embedded micro PC) and an iOS mobile app featuring face and voice recognition technologies.
The project details are covered with NDA.

SBC FITNESS

CLIENT

Manufacturer of exercise equipment from California.

OBJECTIVE

Increase sales of stationary bikes.

IDEA

Integrate stationary bikes with mobile devices = boost workout efficiency.

SOLUTION

iPhone and Android apps are integrated with stationary bike consoles and provide historical workout data (data is available during workout): choice of dates (day/week/month), personal records, account settings, connection to the nearest bike via Bluetooth.

We integrated the apps with BLE interface even without a real stationary bike using only a simulator.

TECHNOLOGIES AND TOOLS APPLIED

iOS SDK, Objective-C, Android SDK, Java, Xcode, CoreData, FacebookSDK, TwitterSDK, EventBus, ButterKnife, Calligraphy, Bluetooth 4.0.

TEAM

1 Project Manager, 4 Middle Developers, 2 Middle QA Engineers.

RADIATION METERAGE SOLUTION

CLIENT

The U.S. law enforcement agencies.

0	5	10	15	20	25

OBJECTIVE

Automate investigation at crime scenes with radioactive isotopes.

IDEA

The solution should connect radiation detection devices, process sensor readings and send data to the server.
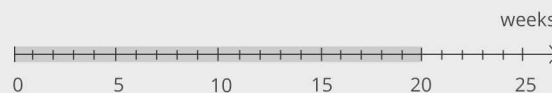
SOLUTION

Radiation Meterage works with a wide range of radiation detection & monitoring devices. It processes sensor data and generates certain types of reports; supports secure authentication and ensures safe data transfer to the server. The security is ensured by obligatory authorization and a remotely generated PIN-code.

TECHNOLOGIES AND TOOLS APPLIED

iOS SDK, Android SDK, RestKit, CoreBluetoorh, CoreData, ButterKnife, Objective-C, Java.

TEAM

3 iOS Developers (1 Senior, 2 Middle), 3 Android Developers (1 Senior, 2 Middle), 2 QA Engineers, 1 Designer, 1 Project Manager.
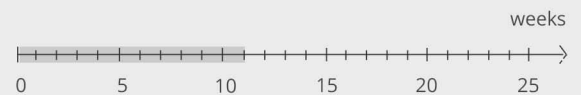
ECDGRAM

CLIENT

US-based healthcare Company.

OBJECTIVE

Develop a mobile data visualization solution for
a custom IoT device that uses smart EKG sensors.

IDEA

Develop an IoT solution using OpenGL library so that it can process large
amounts of data and create high-quality images (300-500 dpi per second) in real time.

SOLUTION

The ECDgram solution can be used by cardiologists and patients with heart disease.
It displays graphical data generated by smart sensors which detect the electrical signals
of a human body, thus enabling effective healthcare monitoring. The ECDgram receives
data from a custom device via Bluetooth.

TECHNOLOGIES AND TOOLS APPLIED

iOS SDK, Objective-C, C++, OpenGL, CoreData, RestKit.

TEAM

Senior Developer, Middle Developer, System Architect, Project Manager, QA Engineer.

weeks

0   5   10   15   20   25

ST FITNESS

CorePlot **AFN** **CORE DATA**

CLIENT

Company producing exercise
equipment from San Diego.

OBJECTIVE

Facilitate in-store sales and enable
customers to create & track daily workouts.

IDEA

IoT solution which would copy their iPad app (but will support iPhones
& Android-based devices) & would be integrated with their exercise equipment.
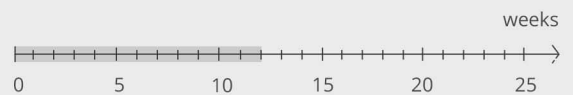
SOLUTION

Our team implemented a bareback CMS to create a custom app for iOS and Android (with UX in
mind). The new app is integrated with client's exercise equipment and caches large amounts of data
for offline usage. It features database of 1,200 strength training exercises (photo & video); rep timer
with notifications;personal & customizable workouts; progress comparison chart & social sharing.

TECHNOLOGIES AND TOOLS APPLIED

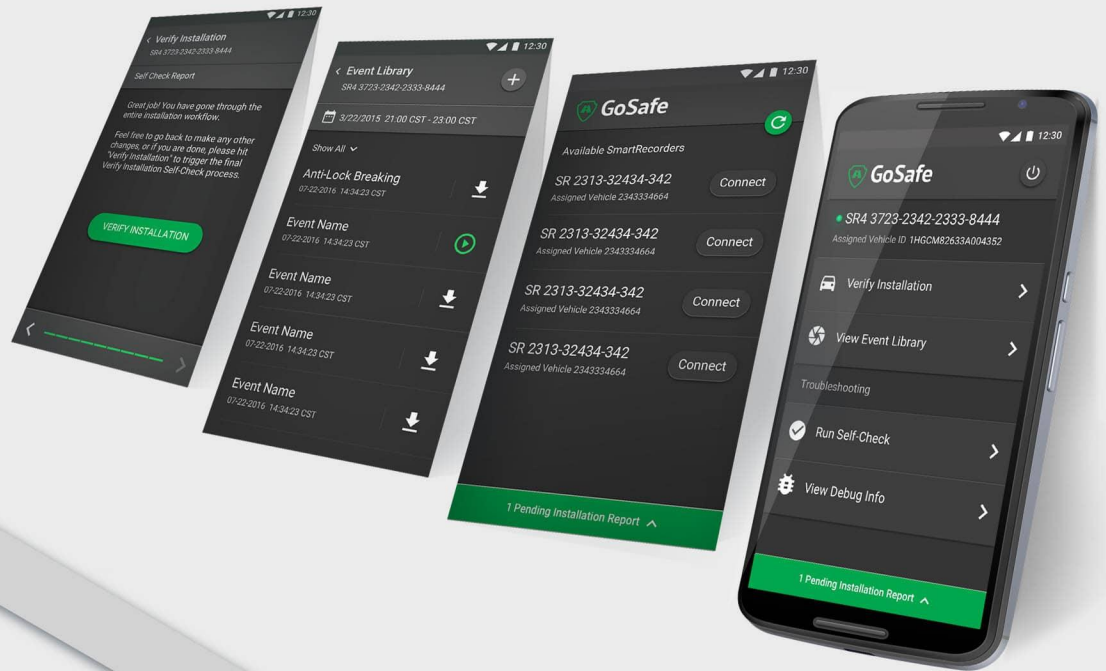iOS SDK, Android SDK, RestKit, CoreBluetoorh, CoreData, ORMLite, Retrofit 2.0, Objective-C, Java.

TEAM

1 Senior Developer, 2 Middle Developers, Project Manager, QA Engineer.

weeks

0   5   10   15   20   25

Retrofit 2.0

Java 7

ORM

CLIENT

CA-based international company specializing in fleet safety and management solutions.

OBJECTIVE

Business processes automation.

IDEA

Android-based solution for GoSafe technicians who are responsible for installing and maintaining SR4 devices on vehicles. The app connects to devices, collects and analyzes data enabling technician to form a report.

SOLUTION

Solution communicates with devices over Bluetooth/Bluetooth LE technology and allows for modifying devices settings, analyzing logs and video feed data, as well as enables remote device maintenance within cellular coverage zones. The app features 2 modes depending on user's role.

TECHNOLOGIES AND TOOLS APPLIED

Android SDK 23, Java7, ORM ActiveAndroid, Retrofit 2.0, EventBus 3.0, Bluetooth/BLE SDK.

TEAM

2 Middle Android Developers, 1 Team Leader (Senior Android Developer), 1 Project Manager, 1 QA Engineer, System Architect.

R-Style Lab was founded in 2006 as a part of NY-based software house.
We began with a sales office in San Francisco, CA and a little R&D center in Minsk, Belarus.
And here we are 10 years later – a successful custom software development company with
120+ developers in our dev center and 85+ happy clients all over the world.

SEEING IS BELIEVING: CHECK OUT THIS VIDEO ABOUT US!

Proficiency: 10+ years in IT, 200+ projects delivered to 85+ happy clients.

Smooth & simple workflow: besides the trained & certifies PMs, BAs we also appoint one whatever-what contact person to guide you through the project.

Strong & well-balanced in-house team: 40% of the team are senior developers with 7+ years' experience + middle & junior developers.

Help startups with pitching their ideas (tech part + materials for presentation).

R&D: we love it and do some really interesting things: AI, connected house technologies; face & voice recognition systems, etc.

Consultation on the choice of the most **cost-effective pricing model, optimum methodology & technology** for the project.

Scalability: in case our 120+ developers are not enough we can borrow resources from our US teams as we are a part of NY-based software house.

Help in agreeing budgets and deadlines with Investors and/or Executive Board.

> *Work with R-Style Lab is a classic example of successful IT-outsourcing. We've been fully satisfied with the professional level of the work done.*
>
> **Sergey Kiruschin, Head of IT at Aeroflot**

> *R-Style Lab have fulfilled the task assigned to the full extent of their power. All the works were completed on a very high professional level.*
>
> **Mark Valentini, CIO of "Red Square" Ltd.**

> *R-Style Lab developed a fault-tolerant & easy-scalable system improving customer service, optimizing employees' work & structuring data processing.*
>
> **Alexander Arikainen, Administrative Director at Dentu-Smart**

> *R-Style Lab solution allowed us to improve the quality of communication in the company & reduce its costs.*
>
> **Anton Karzhavin, Project Manager at Rive Gauche**

> *They are hands down the best I've seen: excellent communication skills, thorough QA practices, & superb technical expertise.*
>
> **Hunter Jensen, CEO at Barefoot Solutions, Inc.**

> *According to our estimates, the R-Style Lab's delivered project let us lower the operational costs by almost 2 times.*
>
> **Andrey Golovchanov, PM at Uhrenholt**

> *I think R-Style Lab works very well, and the project manager I have is very talented and reliable.*
>
> Project Manager, Digital Design Agency

> **They are great at communication, and understanding the project. It's been good to work with such guys, who can understand what we need no matter what.**
>
> CEO, Niche Information Technology Firm

> **Their technical leadership is stellar. It's far and above anything that I've worked with in the past, and that trickles down to everyone on their team. They're very responsive to our needs and consistently go above and beyond.**
>
> Founder & CEO, Boutique Digital Agency

> **We had a good experience working with R-Style Lab. We find them extremely reliable and responsive, which are big things when working with an offshore provider. It's been a very fruitful partnership.**
>
> Product Manager, Marketing and Advertising Firm

> **The one thing that struck me was the accountability that they demonstrated. They take serious ownership of their work. They're always on the lookout for things that they can improve, which makes them more of a partner than a vendor.**
>
> Head of Sales and Account Manager, Software Development Firm

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CONTACT US

We will be happy to respond to your questions
and discuss your needs on the **phone or by e-mail.**

All enquiries are processed and responded to
within 12 business hours.

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We don't peddle trends. We streamline business.